

## IN THE CLAIMS

### **Listing of Claims**

1. (Original) A method for monitoring mirroring conditions of at least one of a pair of storage units, comprising:

requesting mirroring software to obtain status information relating to the at least one storage unit pair; and

automatically monitoring mirroring conditions of the at least one storage unit pair, based upon status information obtained, to automatically determine the status of a mirroring process between units of the at least one storage unit pair.

2. (Original) The method of claim 1, further comprising storing monitoring information for at least one storage unit pair, wherein the mirroring software is requested to obtain status information based upon the stored monitoring information.

3. (Original) The method of claim 1, wherein the step of automatically monitoring includes automatically determining whether the mirroring process between storage units of the storage unit pair has been suspended.

4. (Original) The method of claim 3, further comprising:  
resynchronizing, in conjunction with the mirroring software, the mirroring process between units of the storage unit pair, upon determining that the mirroring process between units of the storage unit pair has been suspended.

5. (Original) The method of claim 4, wherein resynchronization occurs only upon determining that automatic resynchronization of the storage unit pair has been enabled.

6. (Original) The method of claim 5, wherein the stored monitoring information includes an autorecover flag, indicating whether or not automatic resynchronization has been enabled.

7. (Original) The method of claim 2, wherein the step of storing includes storing at least one of information identifying the storage unit pair, information identifying associated mirroring software, and information identifying a monitor interval and wherein the step of requesting includes requesting associated mirroring software to obtain status information, based upon a stored monitor interval.

8. (Original) The method of claim 7, wherein the step of monitoring includes determining whether the mirroring process between storage units of the storage unit pair has been suspended.

9. (Original) The method of claim 8, further comprising:  
resynchronizing, in conjunction with the mirroring software, the mirroring process between storage units of the storage unit pair, upon determining that the mirroring process between storage units of the storage unit pair has been suspended, and upon determining that automatic resynchronization of the storage unit pair has been enabled.

10. (Original) The method of claim 9, wherein the stored monitoring information includes an autorecover flag, indicating whether or not automatic resynchronization has been enabled.

11. (Original) The method of claim 2, wherein monitoring information is stored for a plurality of storage unit pairs, status information for each

storage unit pair is requested, and mirroring conditions of each storage unit pair are monitored.

12. (Original) The method of claim 11, wherein the step of storing includes storing information identifying a storage unit pair, information identifying associated mirroring software, and information identifying a monitor interval, and wherein the step of requesting includes requesting associated mirroring software to obtain status information, based upon a stored monitor interval.

13. (Original) The method of claim 12, wherein the monitoring information for each of a plurality of storage unit pairs is stored in a database.

14. (Currently Amended) The method of claim 2, wherein the stored monitoring information for ~~a~~the at least one storage unit pair is remotely monitorable.

15. (Original) The method of claim 5, further comprising storing monitoring information for at least one storage unit pair, wherein the mirroring software is requested to obtain status information based upon the stored monitoring information, wherein the stored monitoring information is variable.

16. (Original) The method of claim 12, wherein the stored monitoring information is variable.

17. (Original) The method of claim 12, wherein monitoring information for a storage unit pair can be added to the database.

18. (Original) A method for monitoring mirroring conditions of at least one of a pair of storage units, comprising:

requesting mirroring software to obtain status information relating to at least one storage unit pair;

automatically determining whether the mirroring process between storage units of the storage unit pair has been suspended based upon the status information obtained; and

resynchronizing, in conjunction with the mirroring software, the mirroring process between units of the storage unit pair, upon determining that the mirroring process between storage units of the storage unit pair has been suspended.

19. (Original) The method of claim 18, further comprising storing monitoring information for at least one storage unit pair, wherein the mirroring software is requested to obtain status information based upon the stored monitoring information.

20. (Original) The method of claim 19, wherein resynchronization occurs only upon determining that automatic resynchronization of the storage unit pair has been enabled, and wherein the stored monitoring information includes an autorecover flag, indicating whether or not automatic resynchronization has been enabled.

21. (Original) The method of claim 19, wherein the step of storing includes storing at least one of information identifying the storage unit pair, information identifying associated mirroring software, and information identifying a monitor interval.

22. (Currently Amended) An apparatus for monitoring mirroring conditions of a pair of storage units, comprising:

a database, adapted to store monitoring information for ~~the~~ at least one storage unit pair; and

a control unit, operatively connected to the database and mirroring software for the at least one pair of storage units ~~unit pair~~, adapted to request mirroring software to obtain status information relating to the at least one storage unit pair, based upon the stored monitoring information and adapted to automatically monitor mirroring conditions of the at least one storage unit pair, based upon status information obtained, to automatically determine the status of a mirroring process between units of the at least one storage unit pair.

23. (Original) The apparatus of claim 22, wherein the control unit is further adapted to automatically determine whether the mirroring process between storage units of the storage unit pair has been suspended.

24. (Original) The apparatus of claim 23, wherein the control unit is further adapted to resynchronize, in conjunction with the mirroring software, the mirroring process between units of the storage unit pair, upon determining that the mirroring process between units of the storage unit pair has been suspended.

25. (Original) The apparatus of claim 24, wherein the control unit is adapted to resynchronize only upon determining that automatic resynchronization of the storage unit pair has been enabled.

26. (Original) The apparatus of claim 25, wherein the stored monitoring information includes an autorecover flag, indicating whether or not automatic resynchronization has been enabled.

27. (Original) The apparatus of claim 22, wherein the database is adapted to store at least one of information identifying the storage unit pair, information identifying associated mirroring software, and information identifying a monitor interval.

28. (Original) The apparatus of claim 22, wherein the database is adapted to store monitoring information for a plurality of storage unit pairs, status information for each storage unit pair is requested, and mirroring conditions of each storage unit pair are monitored.

29. (Original) The apparatus of claim 28, further comprising:  
an interface, operatively connected to the database, for adding monitoring information for additional pairs of storage units.

30. (Original) The apparatus of claim 22, further comprising:  
an interface, operatively connected to the database, for varying stored monitoring information.

31. (Currently Amended) An apparatus for monitoring mirroring conditions of a pair of storage units, comprising:

a database, adapted to store monitoring information for ~~the~~ at least one storage unit pair; and

a control unit, operatively connected to the database and mirroring software for ~~the at least one pair of storage units~~ unit pair, adapted to request associated mirroring software to obtain status information relating to the at

least one storage unit pair, based upon the stored monitoring information, adapted to automatically determine whether the mirroring process between storage units of the storage unit pair has been suspended based on the status information obtained, and adapted to resynchronize in conjunction with the mirroring software, the mirroring process between storage units of the storage unit pair, upon determining that the mirroring process between storage units of the storage unit pair has been suspended and upon determining that automatic resynchronization of the storage unit pair has been enabled.

32. (Original) A system for monitoring mirroring conditions of at least one pair of storage units, comprising:

- a mirroring software system, adapted to automatically obtain status information on mirroring conditions of the at least one pair of storage units; and

- an apparatus, adapted to automatically monitor mirroring conditions of the at least one pair of storage units in conjunction with the mirroring software system, the apparatus including,

- a database, adapted to store monitoring information for the storage unit pair, and

- a control unit, operatively connected to the database and mirroring software for the pair of storage units, adapted to request mirroring software to obtain status information relating to the at least one storage unit pair, based upon the stored monitoring information and adapted to automatically monitor mirroring conditions of the at least one storage unit pair, based upon status information obtained, to automatically determine the status of a mirroring process between units of the at least one storage unit pair.

33. (Original) The system of claim 32, wherein the control unit is further adapted to resynchronize, in conjunction with the mirroring software,

the mirroring process between units of the storage unit pair, upon determining that the mirroring process between units of the storage unit pair has been suspended.

34. (Original) The system of claim 33, wherein the control unit is adapted to resynchronize only upon determining that automatic resynchronization of the storage unit pair has been enabled.

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